

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DALE R. DICK JR., and JOSEPH M. ENDRESZL

Appeal No. 2003-0131
Application 09/533,060

HEARD: August 20, 2003

Before STAAB, McQUADE, and BAHR, Administrative Patent Judges.
McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Dale R. Dick, Jr. et al. originally took this appeal from the final rejection (Paper No. 7) of claims 1 through 16. As the appellants have since amended claim 6 and canceled claim 15, the appeal now involves claims 1 through 14 and 16, all of the claims currently pending in the application.

THE INVENTION

The invention relates to "a driving axle cover pan equipped with an anti-lock braking system sensor" (specification, page 1). Representative claim 1 reads as follows:

1. A driving axle assembly comprising:
an anti-lock braking system sensor;
a carrier having an opening:
a differential assembly including a housing rotatably mounted to said carrier; and
a stamped cover pan mounted to said carrier to enclose said opening, said stamped cover pan including a boss having a generally planar mounting surface for aligning and mounting said anti-lock braking system [sensor]¹ and an aperture therethrough for receiving said anti-lock braking system sensor, said anti-lock braking system sensor being adjustably coupled to said cover pan such that a predetermined clearance between said differential assembly housing and said anti-lock braking system sensor may be obtained.

THE PRIOR ART

The references relied on by the examiner as evidence of obviousness are:

Hilker et al. (Hilker)	4,683,775	Aug. 04, 1987
Mueller	4,263,824	Apr. 28, 1991

¹ The above noted informality in claim 1 and the like informality in claim 10 are deserving of correction in the event of further prosecution.

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Stephanus et al. (Stephanus)	4,503,934	Mar. 12, 1985
Platt	5,547,042	Aug. 20, 1996
Bendix Corp., British	1,400,801	July 23, 1975
Patent Document (Bendix)		

THE REJECTIONS

Claims 1 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mueller in view of Hilker.

Claims 2, 11 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mueller in view of Hilker and Stephanus.

Claims 5 through 7 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mueller in view of Hilker and Platt.

Claims 3, 4 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mueller in view of Hilker, Stephanus and Bendix.

Claims 8, 9 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mueller in view of Hilker, Platt and Bendix.

Attention is directed to the appellants' main and reply briefs (Paper Nos. 11 and 13) and to the examiner's answer (Paper No. 12) for the respective positions of the appellants and the examiner regarding the merits of these rejections.²

DISCUSSION

Mueller, the examiner's primary reference, discloses a limited slip axle differential mechanism 10. As shown in Figure 1, this differential mechanism comprises, inter alia, a differential carrier 12, an axle housing 14, a ring gear 34 (in meshing engagement with an output pinion 30), a rotatable differential case 36, a sensor 200 connected to the carrier at 202 by threads or any other suitable means to detect the rotational speed of the ring gear, and an alternate placement of the sensor at 206.

² In the final rejection, claims 6 through 9 also stood rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The examiner has withdrawn this rejection in view of the amendment of claim 6 subsequent to final rejection (see the advisory action dated February 22, 2002, Paper No. 10).

In applying Mueller against independent claims 1 and 10 (see page 3 in the answer), the examiner focuses on the sensor at 206 and finds that such is adjustably coupled via a threaded connection to a stamped cover pan. The examiner concedes, however, that Mueller does not respond to the limitations in claim 1, and the corresponding limitations in claim 10, requiring the stamped cover pan to include a boss having a generally planar mounting surface for aligning and mounting the sensor. To overcome this admitted deficiency, the examiner looks to Hilker.

Hilker discloses a speed sensing differential axle assembly 10 comprising, inter alia, a carrier 12, a rotatable case 14, a ring gear 20, an access cover plate 34, and a transducer 40 mounted on the access cover plate for sensing the rotational speed of the case.

Finding that Hilker's speed sensor 40 is mounted on a boss on the access cover plate 34, the examiner concludes that it would have been obvious in view of Hilker "to include a boss in the pan of Mueller to provide a flat surface for aligning the sensor, ensuring the accurate position of the sensor" (answer, page 3).

The appellants do not dispute the examiner's determination that Mueller's alternate sensor at 206 is mounted to a cover pan which is "stamped," and the examiner does not dispute the appellants' assertion that Mueller's sensor 200 and Hilker's sensor 40 are respectively mounted to a carrier 12 and an access cover plate 34 which are "cast" (as opposed to "stamped"). The appellants, however, do challenge the examiner's determination that Mueller's sensor at 206 is adjustably coupled via a threaded connection to the stamped cover pan, and argue that there is no suggestion in Mueller and Hilker to provide a stamped cover plate with a boss having a generally planar mounting surface for aligning and mounting a sensor with the sensor being adjustably coupled to the cover pan as recited in claims 1 and 10.

Obviousness cannot be established by combining the teachings of the prior art to produce a claimed invention absent some teaching or suggestion supporting the combination. In re Fritch, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992). The mere fact that the prior art might be modified in a manner advanced by an examiner does not make the modification obvious unless the prior art suggests the desirability of the modification. Id. In the

present case, the combined teachings of Mueller and Hilker provide no support for the examiner's implication that a boss with a flat or planar mounting surface as in Hilker would add to the alignment accuracy afforded by the purported threaded connection between Mueller's sensor at 206 and the "stamped" cover pan to which it is mounted. As the combined teachings of Mueller and Hilker offer no other incentive to provide a stamped cover plate with a boss having a generally planar mounting surface for aligning and mounting a sensor with the sensor being adjustably coupled to the cover pan as recited in claims 1 and 10, it is evident that the only suggestion for combining these references in the manner proposed by the examiner stems from hindsight knowledge impermissibly derived from the appellants' disclosure.

Accordingly, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of claims 1 and 10 as being unpatentable over Mueller in view of Hilker.

As Stephanus, Platt and/or Bendix do not cure the foregoing flaw in the Mueller-Hilker combination relative to the subject matter recited in independent claims 1 and 10, we also shall not

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sustain the standing 35 U.S.C. § 103(a) rejection of dependent claims 2, 11 and 12 as being unpatentable over Mueller in view of Hilker and Stephanus, the standing 35 U.S.C. § 103(a) rejection of dependent claims 5 through 7 and 14 as being unpatentable over Mueller in view of Hilker and Platt, the standing 35 U.S.C. § 103(a) rejection of dependent claims 3, 4 and 13 as being unpatentable over Mueller in view of Hilker, Stephanus and Bendix, or the standing 35 U.S.C. § 103(a) rejection of dependent claims 8, 9 and 16 as being unpatentable over Mueller in view of Hilker, Platt and Bendix.

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SUMMARY

The decision of the examiner to reject claims 1 through 14
and 16 is reversed.

REVERSED

Lawrence J. Staab)	
Administrative Patent Judge)	
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)	
)	
)	BOARD OF PATENT
John P. McQuade)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
)	
Jennifer D. Bahr)	
Administrative Patent Judge)	

JM/dym

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